# BARAHNA, A NEW SPIDER GENUS FROM EASTERN AUSTRALIA (ARANEAE: AMAUROBIOIDEA) 

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#### Abstract

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#### Abstract

Eight new species of Barahna gen. nov. are diagnosed, deseribed and illustrated; these are Barahna booloumba, the types species and B. brooyar, B. yeppoon, B. taroom, B. scoria, B. toonumbar, B. myall and B. glenelg. The last is described from a single female. The genus ranges from mid-eastern Queensland, through northern and eastern New South Wales to southern Victoria. A Araneae, Amaurobioidea, Barahna, new genus, eastern Australia.


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This genus is unique among described Australian amaurobioids in having an embolus with obvious 'pars pendula', a name coined by Comstock (1913). It refers to the membraneous part of the embolus in which the sperm duet is carried; it is reduced and not scen in most emboli. A further feature is the retrolateral apophysis on the male palpal patella. This occurs in at least two other, probably unrelated, Australian amaurobioids, Paramatachia and Dardurus.
Barahna spp. have been found in wet sclerophyll, vine scrub and open eucalypt forests from mid-cast Queensland and eastern New South Wales. A single female specimen has been collected from southern Victoria suggesting that it also oceurs in the coastal forests of that State. The spiders were found in shect webs with a small retreat under rocks, logs or near the base of trees; they run on the underside of the web. Egg sacs containing 8 or more eggs are carried in the chelicerae. All species are named for their type locality.

## METHODS

Most of the spiders were collected from pitfall traps (PF) or sieved litter samples. Notation of spines follows Platnick \& Shadab (1975): measurements are in millimetres; the left palp is described and illustrated unless noted.
Abbreviations. Muscums: AM, Australian Museum, Sydney; QM, Queensland Museum, Brisbane; SAM, South Australian Museum. Adclaide: WAM, West Australian Museum, Perth.
Collectors: DC, D. Cook; DW, D. Wallace; GBM, G. B. Monteith; GT. G. Thompson; MRG, M. R. Gray; RJR, R. J. Raven; SRM, S. R. Monteith; VED, V. E. Davies.

Location data: NP, National Park; SF, State Forest.
Anatomy: The usual abbreviations are used for body measurements, eyes and spinnerets. Abbreviations on illustrations are explained in the legends;.others in the text.

## SYSTEMATICS

Barahna gen. nov.
TYPE SPECIES. Baralna booloumba sp. nov.
ETYMOLOGY. From the Aboriginal 'baran-barahn', spider in the Bundjalung language of northern New South Wales-Queensland border region.
DIAGNOSIS. Females may be distinguished from other cribellate amaurobioids by the presence of a pair of small dorso-posterior protuberanees in the foveal region (Fig. 1B); these each have a small pale (unselerotised) area (Fig. 7). Males may be distinguished by a membraneous pars pendula on the coneave side of the embolus; as well, the palpal patella has a retrolateral apophysis (Fig. II).
DESCRIPTION. Small, 3-clawed cribellates (most less than 4.0). Coloration of the abdomen varies from pale to dark grey with a pattern of light spots in a vague chevron pattern (Fig. IC). Carapace highest behind eyes; eyes directed forwards. From above, posterior eye row straight-slightly recurved, anterior row reeurved. AME reduecd. Two retromarginal and 4-6 promarginal cheliecral teeth (Fig. IE); prolateral filamentous seta at base of fang longer than other setae. In the male the retromarginal teeth may be reduced in size and form a diagonal line with the promarginals. Labium about as long as wide; sternum longer than wide, pointed posteriorly
(Fig. 1D). Legs 4123 with bands of darker colour. Feathery hairs on legs and cephalothorax (Fig. 3D). Tarsal trichobothria in a single row, inereasing in length distally; bothrium collariform; tarsal organ oval. Female genital atrium with medial thickening which is sclcrotised basally (Fig. 1G); this sclerotisation provides a useful diagnostic character; it is not delineated in micrographs (Fig. 3A). Tiny lateral teeth, visible at high magnifieation, on posterior lateral edges of atrium. Long, coilcd insemination ducts to posterior spermathecac (Fig. 3B). Male palp with oval tegulum, circular or semi-cireular embolus with pars pendula; membrancous conductor. A small, thin apophysis (? median) obscured by conductor (Figs 1K, 2D) may be present. Retrolateral tibial and patellal apophyses. Cribcllum with two spinning fields in female; large broad colulus in male. Proximal calamistrum with one row of setae. Large ALS with two MAP in fcmale, one and a nubbin in malc (Fig. 4B). PMS with paracribellar spigots in female. Four simple tracheal tubes in abdomen, medians longer than laterals.

## KEY TO BARAHNA SPP.

1. $\delta$. very long embolus encircling tcgulum to terminate postero-retrolaterally. ?, basal scleritc of epigynal atrium pointed (Fig. IG) or rounded
©. embolus describing about three-quarters of a circle to terminate mid-retrolaterally (Fig. 6A). ©.basal sclerite of atrium flat-topped (Fig. 6D)
2. $\delta^{\circ}$, embolus arising postcro-rctrolaterally on tegulum (Fig. 2G). q, basal sclerite short, rounded (Fig. 2J) yeppoon
$\delta^{\circ}$, cmbolus arising antero- or mid-retrolaterally on tegulum. ? basal sclerite pointed, or slender and rounded (Fig. 5D).
3. 0 , embolus curled distally. §. basal sclcrite pointed . . 4 ó, embolus slightly curved distally. $\cap$, basal sclerite slender or rounded.
4. $\delta$, cmbolus arising on mid-retrolateral tegulum booloumba
$\delta^{3}$, cmbolus arising on antero-rctrolateral tegulum (Fig. 2A). . . . . . . . . . . . . . . . . . . . . . brooyar
5. ${ }^{3}$, palpal patellal apophysis truncatcd (Fig. 5B). \&, basal sclerite long, slender with rounded apex . . . . taroom
8, palpal patellal apophysis digitiform. \% , basal sclerite short, with small pointed apex (Fig. 5F) . . . . . scoria
6. \&, basal selcrite as long as wide (Fig. 6D) . . . . . . . 7
\&, basal scleritc longer than wide (Fig. 6L) . . . glenelg
7. $\delta^{\circ}$, patellal apophysis simple,digitiform. $\&$, spermathecac small
toonumbar
$\delta^{\circ}$, patellal apophysis long and bifid (Fig. 6G). 9 . spermathecae large . . . . . . . . . . . . . . . . myall

## Barahna booloumba sp. nov.

(Figs 1A-K, 3A-C, 4A-C, 7A, 8B; Tablc 1)
ETYMOLOGY. From the type locality Booloumba Ck, Conondale NP.
MATERIAL. HOLOTYPE. © ${ }^{\circ}$, Booloumba Ck, Conondale Ra, southeast Queensland, $26^{\circ} 38^{\circ} \mathrm{S}, 152^{\circ} 39^{\circ} \mathrm{E}$, 200 m , rainforest, PF, 29 Nov. 1991-8 Jan. 1992, DC (QM S42241). PARATYPES. Southeast Qucensland: $\%$, same locality as holotype, PF, 13-18 Apr. 1976, RJR (QM S42242): 0.2 ( 2 (QM S42243); 4 ${ }^{2}, 2$ (QM S42244); $28^{\circ}, 9$, Sunday CK, Conondale Ra, $26^{\circ} 43^{\circ} \mathrm{S}, 152^{\circ} 34^{\circ} \mathrm{E}$, 900 m , rainforest. PF, 7 Jan. -2 Mar. 1992 , DC (QM S42245); 20 ${ }^{\circ}, 2$ 웅 same data as holotype (QM S42247); \% , same locality as holotype, PF, 29 Nov. 1974-Feb. 1975, G Maywald (QM S42248); © Little Yabba Ck via Kenilworth, $26^{\circ} 36^{\circ} \mathrm{S}, 152^{\circ} 35^{\circ} \mathrm{E}, \mathrm{PF}, 10$ Aug. 9 Nov. 1974. GBM, SRM (QM S42249); 20․, same data (QM S42250); $20^{\circ}$, Sunday Ck, 900 m , PF, 29 Nov. 1996-7 Jan. 1997, DC (QM S42251); $\delta^{\circ}$, Mapleton Falls NP, $26^{\circ} 38^{\circ} \mathrm{S}, 152^{\circ} 51^{\prime} \mathrm{S}$, $500 \mathrm{~m}, \mathrm{PF}, 8$ Jan-3 Mar. 1992, DC (QM S47136); ${ }^{\circ}$, Ewan Maddock Dam. $26^{\circ}{ }^{\circ} 48^{\circ} \mathrm{S}, 152^{\circ} 59^{\circ} \mathrm{E}, \mathrm{PF}, \mathrm{M}$. Glover (QM S28512); $38,3 \delta^{\prime}, \mathrm{Mc}$ Coolum, $26^{\circ} 34^{\circ} \mathrm{S}, 153^{\circ} 05^{\circ} \mathrm{E}, \mathrm{PF}$, Jan. 1984, B. R. Jahnke (QM S42252); ; 9 , Kcnilworh SF, $26^{\circ} 38^{\circ} \mathrm{S}$, $152^{\circ} 39^{\prime} \mathrm{E}$, wet sclerophyll forest, 5 May 1998, G. Milledge (AM KS71029): 20 , same data (AM KS71030): ס', ㅇ (AM KS71031); 2 ㅇ, rainforest (AM KS71032); ; q, Conondale NP, $26^{\circ} 42^{\circ} \mathrm{S}$. $152^{\circ} 37^{\circ} \mathrm{E}$, wet scleroplyll forest, G Milledge (AM KS71033): ${ }^{\circ}$, Little Yabba Ck, via Kenilworth, PF, 29 Dec. 1974-22 Mar. 1975, GBM, SRM (QM S45688); ${ }^{\circ}$. Cold Ck via $1 \mathrm{mbil}, 26^{\circ} 27^{\prime} \mathrm{S}$, $152^{\circ} 37^{\circ} \mathrm{E}, \mathrm{PF}, 31 \mathrm{Dec} .1974-27 \mathrm{Mar}$. 1975, GBM, SRM (QM S45689); $\delta^{\circ}$. Sunday Ck, $26^{\circ} 40^{\circ} \mathrm{S}, 152^{\circ} 34^{\circ} \mathrm{E}$, rainforest, PF, 18 Dec. 1996-20 Jan. 1997, GBM (QM S45690); ${ }^{2}$, Mary Caimcross Pk via Maleny, $26^{\circ} 43^{\prime} \mathrm{S}$, $152^{\circ} 33^{\circ} \mathrm{E}, 240 \mathrm{~m}, \mathrm{PF}, 29 \mathrm{Dec} .1974-27 \mathrm{Mar}$. $1975, \mathrm{GBM}$, SRM (QM S45691): $0^{\prime}$, Dingo Ck via Traveston, $26^{\circ} 19^{\circ} \mathrm{S}$, $152^{\circ} 48^{\prime} \mathrm{E}, 100 \mathrm{~m}$, PF 5,9 Nov. 31 Dec. 1974, GBM, SRM (QM S45692): $20^{\circ}$. Camerons Scrub, $27^{\circ} 31^{\circ} \mathrm{S}, 152^{\circ} 44^{\circ} \mathrm{E}$, 50 m, PF 7562, 11 Nov. 1998-13 Jan. 1999, GBM, DC, GT (QM S45693), ${ }^{*}, \mathcal{Y}$, Camerons Serub, top of ridge, $27^{\circ} 30^{\circ} \mathrm{S}, 152^{\circ} 44^{\circ} \mathrm{E}, 160 \mathrm{~m}$, rainforest, sieved litter, 21 Nov. 1998, GBM, GT (QM S45718); 2 ठ', Mt Coolum, open forest, Jan. 1984, B.R. Jahnke (QM S45694); $90^{\circ} .9$, Enoggera Reservoir, $27^{\circ} 27^{\prime} \mathrm{S}, 152^{\circ} 55^{\prime} \mathrm{E}$, site 3. 100 m , rainforest, PF 9214, 27 Jan.-15 Mar. 2000, GBM, J.Holt (QM S45728); $40^{\circ}$. 9 , sume locality, site 8, minforest, PF 9068, 10 Nov. 21 Dec. 1999, GBM (QM S45729): $7 \delta^{\circ}$, site 3, PF 9063,16 Oct.-21 Dec. 1999, GBM (QM S45730); ? PF 9433, 15 Mar.-18 May 2000, GBM (QM S45731); 4ठ", \&, PF 9098. 21 Dec. 1999-27 Jan. 2000, GBM. J. I Iolt (QM S45732); $2 \delta^{\circ}$, Mt Cabinct via Jimna, $26^{\circ} 43^{\circ} \mathrm{S}$, $152^{\circ} 34^{\prime} \mathrm{E}$. PF 29, 30 Nov.-29 Dec. 1974, GBM, SRM (QM S45733); ơ, same data, 29 Mar.-16 June 1975 (QM S45734); $0^{\circ}$, Decr Reserve, Kilcoy, $26^{\circ} 59^{\circ} \mathrm{S}, 152^{\circ} 29$, PF 30, 11 Jan.-29 Mar. 1975, GBM, SRM (QM S45735); ; same locality. 1 June-24 Aug. 1975 (QM S45736); 30, Tungi Ck, Jimna, $26^{\circ} 40^{\circ} \mathrm{S}, 152^{\circ} 28^{\circ} \mathrm{E}, \mathrm{PF}$, rainforest. 18 Dec. 1996-20 Jan. 1997, GBM (QM S45737); 38̊, same locality, PF28, 29 Dec. 1974-29 Mar. 1975, GBM, SRM (QM S45738); 20․ Wrattens Camp Forestry via Widgee.


FIG. I. A-K, Barahna booloumba sp. nov. A-H \% ; A, eyes, ehelieerae (frontal); B, eephalothorax (lateral); C, body (dorsal); D, sternum, labium, maxillae; E, ehelicera (ventral); F-H, epigynum (posterior, ventral, dorsal eleared). I-K, of palp (ventral, retrolateral, dorsal). $\mathrm{bs}=$ basal selerite, $\mathrm{e}=$ eonduetor. $\mathrm{pa}=$ patellal apophysis, pp $=$ pars pendula, $\mathrm{ta}=$ tegular apohysis.
$26^{\circ} 18^{\circ} \mathrm{S}, 152^{\circ} 20^{\circ} \mathrm{E}$, PF 10,11 Aug., 10 Nov. 1974, GBM, SRM (QM S45696); \&, same data (QM S45697); 20. 8 ㅇ. Perrys Knob, $27^{\circ} 36^{\circ} \mathrm{S}, 152^{\circ} 36^{\circ} \mathrm{E}$, vine scrub, 200m, sieved litter, 15 May 1999, GBM (QM S45695); \%, đ, same locality, PF 7564, 11 Nov. 1998-13 Jan. 1999, GBM, DC, GT (QM S45709); ${ }^{\circ}, \mathrm{Mt}$ Cotton, $27^{\circ} 37^{\circ} \mathrm{S}, 153^{\circ} 13^{\circ} \mathrm{E}$, 200 m . sieved litter, 13 Sept. 1997, GBM (QM S45714); $\%$, Dandabah, Bunya M\&s NP, $26^{\circ} 53^{\circ} \mathrm{S}, 151^{\circ} 36^{\circ} \mathrm{E}$, notophyll vine forest with Araucuria emergents (hoop pine rainforest), 960 m , litter, 29 Feb. 1976, VED (QM S45667); \& Paul Lentz Plain, Bunya Mis NP, $26^{\circ} 50^{\circ} \mathrm{S}, 151^{\circ} 33^{\circ} \mathrm{E}$, hoop pine rainforest, PF, 7 Nov. 1994, Queensland National Parks (QM S45668); \%, Bunya Mts NP, rainforest sieved litter, 2 Oet. 1979, GBM (QM S45669);
$\delta, \&$, Dandabah, Bunya Mts NP, under log with sheet web, 4 Sept. 1974, RJR (QM S45670); ó. Bunya Mts NP, $26^{\circ} 54^{\prime} \mathrm{S}, 151^{\circ} 37^{\circ} \mathrm{E}, 1006 \mathrm{~mm}$, rainforest, PF19, 1974-1975, GBM, SRM (QM S45671); ठ, same locality, 960 m , rainforest, sieved litter, 2 Oct. 1979, GBM (QM S45674); $48^{\circ}$, $\%$. Belthorpe, $26^{\circ} 50^{\circ} \mathrm{S}, 152^{\circ} 41^{\prime} \mathrm{E}$. rainforest, PF, 18 Dec. 1996-20 Jan.1997. GBM (QM S55185): 28, 3 ㅇ, Redwood Pk.nr. Toowoomba, $27^{\circ} 34^{\prime} \mathrm{S}, 152^{\circ} 00^{\prime} \mathrm{E}, 7 \mathrm{Jan}$. 1986, GBM, SRM (QM S55186): 2 ?, $\delta$, Cunninghams Gap NP, $28^{\circ} 03^{\circ} \mathrm{S}, 152^{\circ} 23^{\circ} \mathrm{E}$ dry forest, sieved litter, 28 June 1991, D. Black (WAM 98/2081-3); ơ, Ravensbourne $\mathrm{NP}, 27^{\circ} 22^{\prime} \mathrm{S}, 152^{\circ} 11^{\prime} \mathrm{E}, 731 \mathrm{~m}$, rainforest, PF38, 10 Nov . 1974-12 Jan. 1975, GBM, SRM (QM S55188) ; 9ㅇ, juv. $\delta^{\circ}$, Upper Brookfield nr Brisbane, $27^{\circ} 28^{\circ} \mathrm{S}, 152^{\circ} 52^{\circ} \mathrm{E}$,
notophyll rainforest with Araucaria, litter, 22 May-11 Aug. 1976, RJR, VED (QM S55190); 36゙, 27, same location. 28 Jan. 1982, RJR, VED (QM S55191); $\mathbf{\delta B}^{\circ}, 9$, PF, 23 Dec. 1980-22 Jan. 1981, RJR, VED (QM S55194); 49, 17 July 1981 (QM S55195); ; with egg sac under log, same data, 2 Sept. 1981 (QM S55198): 3ㅇ, 28, PF, 8-23 Apr. 1981 (QM S55199); 30, Gold Ck nr Brishane, $27^{\circ} 28^{\prime}$ S, $152^{\circ} 53^{\circ}$ E, PF, 31 July-1 Sept. 1981, RJR, VED (QM S55200); © ${ }^{0}$, Flinton Hill nr Ipswich, 120m, PF 52, 20 May-11 Aug. 1976, GBM, SRM (QM S55201); ס, Mt Glorious, $27^{\circ} 20^{\circ} \mathrm{S}, 152^{\circ} 45^{\prime} \mathrm{E}, 29$ Sept. 1973, RJR (QM S55202); 29 , Jollys Lookout, Boombana NP, open forest, litter, 30 June 1991, D. Black (WAM 98/2090-2); of Brisbane Forest Pk nr Boombana, elosed forest, PF, 17-24 July 1987, Rhonda Grundy (OM S55203); 2ठ", Mt Mee via Samford, $2705^{\prime} \mathrm{S}, 152^{\circ} 41^{\circ} \mathrm{E}$, rainforest, PF14, 9 Nov. 1974-11 Jan. 1975, GBM, SRM (QM S55204): 29, Mi Mee SF, $27^{\circ} 06^{\circ} \mathrm{S}, 152^{\circ} 42^{\circ} \mathrm{E}, 550 \mathrm{~m}$, rainforest, stick brushing, 28 Feb. 1979, GBM (QM S55205): © © ㅇ․, Mu Mee, Upper Neurum Ck, $27^{\circ} 05^{\circ} \mathrm{S}, 152^{\circ} 42^{\prime} \mathrm{E}$, rainforest, sieved litter, 3 Sept. 1979, GBM (QM S55206); ठै, Mt Mee, Plateau Site, rainforest, PF 89, 8 Oct. 1977-20 Jan. 1978. GBM (QM S55207); $\mathbf{J}$. Cainbable via Lamington NP, $28^{\circ} 10^{\circ} \mathrm{S}, 153^{\circ} 07^{\circ} \mathrm{E}, 762 \mathrm{~m}$, PF 57,28 Sept 1975-31 Jan 1976, GBM, SRM (QM S 55208); 2 ${ }^{\circ}$. Bahrs Scrub, $27^{\circ} 46^{\circ} \mathrm{S}, 153^{\circ} 10^{\circ} \mathrm{E}, 100 \mathrm{~m}$, rainforst, PF, 10 Dec. 1991-21 Jan. 1992, DC (QM S25032). OTHER MATERIAL. New South Walcs: ${ }^{\circ}$, New Brighton Beach via Brunswick Heads, $28^{\circ} 31^{\circ} \mathrm{S}, 153^{\circ} 33^{\circ} \mathrm{E}, 10 \mathrm{~m}$, rainforest, PF 39, 3 Aug. 16 Nov.1975, GBM, SRM (QM S55189).

D1AGNOSIS. Retrolateral origin of cmbolus; palpal patellal apophysis digitiform (Fig. 1K). Sclerotised base of epigynal atrium pointed anteriorly. Dorso-postcrior protuberances in foveal region rounded with small posterior unsclerotised areas (Fig. 7A).
DESCRIPT1ON. Male. CL1.9, AL 1.9. Ratio of AME: ALE: PME: PLE is 6:10:10:10. Legs 4123 (Table 1). Notation of spines. Fcmora: 1, D110, P001; I1, D111, P001, R001; 111, D101, P101, R001; IV, D101, P001, R001. Patellae: 111, D001. Tibiac: 1, P011, V102, R011; 11, D001, P101, V102, R101; 111, D001, P101, V012, R101; 1V, P101, V112, R101. Mctatarsi spined with distal whorl 4-5 spines.
ot palp (Fig. 11-K). Embolus with membraneous pars pendula arising retrolatcrally

TABLE I. Barahna booloumba ơ ( $\ddagger$ ) leg lengths.

|  | Leg 1 | Leg II | Leg 111 | Leg IV |
| :---: | :---: | :---: | :---: | :---: |
| Femur | $1.7(1.5)$ | $1.5(1.3)$ | $1.3(1.2)$ | $1.9(1.5)$ |
| Patella X <br> Tibia | $2.3(1.9)$ | $1.8(1.4)$ | $1.6(1.3)$ | $2.3(1.8)$ |
| Metatarsus | $1.6(1.3)$ | $1.3(1.0)$ | $1.3(0.9)$ | $1.9(1.5)$ |
| Tarsus | $1.0(0.8)$ | $0.8(0.7)$ | $0.6(0.6)$ | $0.8(0.8)$ |
| Total | $6.6(5.5)$ | $5.4(4.4)$ | $4.8(4.0)$ | $6.9(5.6)$ |

and encircling tegulum clockwisc, ending in a distal curl postero-retrolatcrally. Membraneous conductor arising just anterior to embolus, broadening distally; small membrancous thin finger-like tegular apophysis arising dorsal to cmbolus and obscurcd by conductor (Fig.2D). Retrolateral tibial apophysis (RTA) with curved blunt ventro-retrolateral and digitiform retrolateral branches. Smallcr digitiform patellal apophysis.

Other males ranged from 3.0-3.8 in length.
Female. CL 1.6, AL 1.8. Ratio of AME: ALE: PME: PLE is 6:9:9:9. Lcgs 4123 (Table 1). Carapace with two small dorso-posterior protuberances on fovea. Notation of spines. Fcmora: 1, D101, P001; 11, D101, P001, R001; 111, D101, P001, R001; 1V, D101, P001, V010, R001. Patcllac: I11, D001. Tibiae: I, P011, V102; I1, P011, V010, R101; 111, D001, P011, V012, R011; IV, D101, P011 , V112, R011. Metatarsi spined with distal whorl of 4-5 spines.

Epigynum (Figs 1F-H, 3A,B). Gonopores at basc of atrium; insemination ducts proceed laterally then coil (two or three coils) forward to turn back to enter spermathecae. Tiny lateral teeth on posterior lateral edges of atrium; sclcrotised basal part of atrium pointed.

Spinncrets (Fig. 4A,C). ALS with two major ampullate spigots, about 14 piriform spigots and at least two tartipores. PMS with large anterior spigot (minor ampullate), two postcrior spigots (cylindrical) and eight othcrs. Four of these have one or two strobilate shafts (paracribellars) and four have single plain shafts (aciniform). PLS with two large (cylindrical) and four aciniform spigots.

Femalcs ranged in length from 3.5-3.9.
DISTRIBUTION. B. booloumba (Fig. 8B) has becn collected from many localitics in southeastern Queensland and from Brunswick Heads in coastal New South Wales.

## Barahna brooyar sp. nov. <br> (Figs 2A-F, 8B)

ETYMOLOGY. From the type locality Brooyar SF.
MATERIAL. HOLOTYPE. ó, Brooyar Fire Tower via Gympie, southeast Queensland, $26^{\circ} 10^{\circ} \mathrm{S}, 152^{\circ} 28^{\circ} \mathrm{E} .457 \mathrm{~m}$, rainforest, PF54, 23Aug. 1975-29 Feb. 1976, GBM, SRM (QM S45722). PARATYPES. Southeast Queensland: O, ${ }^{\circ}$ same data (QM S45723); $\delta$, same locality and collectors, 29 Feb. 25 Apr. 1976 (OM S45724); $70^{\circ}$, Marys Ck, Forestry via Gympic, $26^{\circ} 16^{\circ} \mathrm{S}, 152^{\circ} 33^{\circ} \mathrm{E}, 240 \mathrm{~m}, \mathrm{PF} 9$, 11 Aug.-10 Nov. 1974, GBM, SRM (QM S45725); ס̌, same locality and collectors, 16 June-28 Aug. 1975 (QM


FIG. 2. A-K, Baralua spp. nov. A-F, B. brooyar sp. nov. A-D, of palp (ventral, retrolateral, dorsal, expanded in KOH ): E.F. $f$ epigynum (ventral, dorsal cleared). G-K, B. yeppoon. G-I, of palp (ventral, retrolateral, dorsal); J,K. \& epigynum (ventral, dorsal cleared) ta $=$ tegular apophysis.

S45726); ㅇ, 28 Mar.-16 Junc 1975 (QM S45727): ${ }^{\circ}, 11$ Aug.-10 Nov. 1974 (QM S55209).

DlAGNOSIS. In males the embolus arises near the anterior retrolateral edge of tegulum (Fig. 2A) obscuring the anterior coil of the sperm duct, unlike B.booloumba where it arises mid-retrolaterally (Fig. II) and the sperm duct is clearly seen.

DESCRIPTION. Male. CL 2.0, AL I.8. Ratio of AME: ALE: PME: PLE is 6: 9: 8: 9. Legs 4123. I, $6.9 ; 11,5.6 ; 111,4.6 ; 1 \mathrm{~V}, 7.3$. Notation of spines somewhat variable within left and right sides of spider and between specimens. Femora: 1, D0 I1,

P00I; 11, D001, P001; 111, D110, P001, R00(1); IV, D100, R00(1). Tibiac: I, P011, V2(2)2, R011; II, D001, P0(0)I, V1I2, R101; 1II, D(1)0(0), P101, V(1)12, R011: IV, D00(1),P0(0)1, V(1)12, $R(0) 1(1)$. Metatarsi spined with dorsal whorl of 4-5spines.
$\delta$ palp (Fig. 2A-D). Embolus arising near anterior edge of tegulum obscuring coil of sperm duct: embolus curled distally. RTA digitiform, ventro-RTA blunt, sclerotised. Patellal apophysis digitiform.

Malcs ranged from 2.7-3.9 in length.
Female. CL 1.9, AL 2.1. Legs: I, 6.7; 11, 5.3; 111, 5.0; IV -. Notation of spines similar to male with


FIG. 3. A-D, Barahna spp. nov. A-C, B. booloumba; A. of epigynum (ventral, arrow to lateral teeth); B, epigynum (dorsal eleared; pholo-mierograph showing embolus in insemination duet); C, protuberanees on fovea; D, B. yeppoon, © foveal area.
fewer spines on ventral tibiac: III, 012; 1V, V11I. Epigynum (Fig. 2E.F). Sclerotised base of atrium long and pointed.

The other female was 4.0 long.
DISTRIBUTION. B. brooyar (Fig. 8B) has been collected from only two localities in southeastern Queensland.

## Barahna yeppoon sp. nov. <br> (Figs 2G-K, 3D, 4D, 8A)

ETYMOLOGY. From the type locality, Yeppoon.
MATERIAL. HOLOTYPE. ©̛, Yeppoon, Meikleville Hill, Queensland, $23^{\circ} 06^{\circ} \mathrm{S}, 150^{\circ} 43^{\circ} \mathrm{E}$. vine thicket, PF, 21 Apr.-18 July 1990. DW, RJR (QM S34450). PARATYPES. Quecnsland: 39, Yeppoon, Iwasaki Rd. vine thicket, PF. 18 July-23 Oct. 1990, DW, RJR, K. Williams (QM S33577): © 0 , same locality as holotype, PF, 18 July-23 Oet. 1990; DW, RJR. K. Williams (QM S34096): $0^{\circ} .79 .6 .2 \mathrm{~km}$ W Yeppoon, $23^{\circ} 10^{\circ} \mathrm{S}, 150^{\circ} 43^{\circ} \mathrm{E}$, semi-dry scrub, 27 May 2000, G Milledge, H. Smith (AM

(AM KS67483): $20^{\circ}$, Frenehville, $23^{\circ} 20^{\circ} \mathrm{S}, 150^{\circ} 34^{\prime} \mathrm{E}$, open forest, PF. 21 Apr.-18 July 1990, DW, RJR (QM S34443); \&. Rosslyn Head, $23^{\circ} 10^{\circ} \mathrm{S}, 150^{\circ} 47^{\circ} \mathrm{E}$, vine thicket, PF, 18 July-23 Oct. 1990. DW, RJR, K. Williams (QM S25580); 20゙, same data (QM S25589); 20 , same locality, PF, 20 Apr.-18 July 1990, DW, RJR (QM S34246): $20^{\circ}$, Bondoola, $23^{\circ} 11^{\prime} \mathrm{S}, 150^{\circ} 41^{\circ} \mathrm{E}$, open forest, PF. 20 Apr.-July 1990, DW, RJR (QM1 S22196); ㅇ, same locality, PF, 18 July- 23 Oct. 1990, DW, RJR, K. Williams (QM S46237): $\delta \mathbf{\delta}$, Nob Ck, 23 Sept. 1993, DW (QM S34427): $\delta^{\circ}$. Olsen's Cavems, $23^{\circ} 10^{\circ} \mathrm{S}, 150^{\circ} 28^{\circ} \mathrm{E}$, open forest. PF, DW, RJR, K. Willians (QM S41239); ㅇ, Mt Archer, $23^{\circ} 20^{\circ} \mathrm{S}, 150^{\circ} 35^{\circ} \mathrm{E}, 650 \mathrm{~m}$, open forest. PF, 4 Sept.-11 Nov. 1991, DW, RIR (QM S46022); 8 . Mt Chalmers, $23^{\circ} 10^{\circ} \mathrm{S}, 150^{\circ} 38^{\circ} \mathrm{E}$, open forest, PF, Oct. 1990-21 Mar. 1991, DW, RJR, K. Williams (QM S24551); $\delta^{\circ}$. Fairlies Knob, $25^{\circ} 32^{\circ} \mathrm{S}, 152^{\circ} 19^{\circ} \mathrm{E}, 120 \mathrm{~m}$, vine serub, PF, 21 July-20 Oet. 2000, DC, J. Wright. E. Vanderduys, 9463 (QM S55257); 8. Teewah Ck, Cooloola. $25^{\circ} 57^{\circ} \mathrm{S}$, $153^{3} 06^{\circ} \mathrm{E}, 14$ Sept. 1973, RJR (QM S55245); ㅇ, Cooloola, rainforest, under rotten log, 21 Aug. 1970, E.C. Dahms (QM S55240); © 0 , fo, Cooloola, ligh dune, PF, Oct. 1978, C. Plowman (QM S55248); ㅇ, 78. Orchid Beach, Fraser 1., $24^{\circ} 58^{\circ} \mathrm{S}, 153^{\circ} 19^{\circ} \mathrm{E}, \mathrm{PF}, 20$ Aug. -17 Dec. 1997, RJR, P.

Fishburn, P. Lawless (QM S43420): © . Fraser 1.. Feb. 1971, ANU (AM KS34841): 8.3 ㅇ, Fraser 1., Orchid Beach. $24^{\circ} 58^{\circ} \mathrm{S}, 153^{\circ} 18^{\circ} \mathrm{E}, \mathrm{PF}, 20$ Aug. -17 Dec. 1997. RJR, P. Lawless (QM S43453); 36, $\circ$, same data (QM S41776): $30^{\circ}, 3$ 29, Fraser 1., heath, Banksia. cucalypt. PF, 7 Mar.-1 Oct. 1996. RJR (QM S31275); ${ }^{3}$. Mt Coot-tha, $2^{7} 2^{\circ} 9^{\circ} \mathrm{S}, 152^{\circ} 57^{\prime} \mathrm{E}, \mathrm{PF}, 17$ Dec. 1996, RJR (QM S41181); 오, Slaughter Pk, Mt Coot-tha, 22 May 1978, VED, RIR (QM S55261): ${ }^{\circ}$, Mt Coot-tha, 1 Sept. 1973, RJR (QM S55262): $\delta^{\circ}, \mathrm{Mt}$ Nebo, $27^{\circ} 24^{\circ} \mathrm{S}, 152^{\circ} 47^{\circ} \mathrm{E}, \mathrm{PF}$, mixed sclerophyll, 16 Oct .1978 , A. Rozefelds (QM S55263): 0', Mi Glorious, $27^{\circ} 20^{\circ} \mathrm{S}, 152^{\circ} 45^{\circ} \mathrm{E}$, sieved litter, 20 June 1991, D. Black (WAM 98/2101); 4ठ', Cooloola Village, $26^{\circ} 00^{\circ} \mathrm{S}, 153^{\circ} 00^{\circ} \mathrm{E}, \mathrm{PF}, 8$ July-4 Dec. 1998, RJR. P. Lawless (QM S53390); ${ }^{\circ}$, Camerons Scrub, $27^{\circ} 30^{\circ}{ }^{\circ}$ S, $152^{\circ} 4^{\circ} \mathrm{E}, 90 \mathrm{~m}$. PF, 7557 , vine serub, 11 Nov. $98-13 \mathrm{Jan}$. 1999. GBM, DC, GT (QM S45715); ठ, Bunya Mts, Paradise, $26^{\circ} 52^{\circ} \mathrm{S}, 151^{\circ} 35^{\circ} \mathrm{E}$, pyrethrum pine trunks 5026. GT (QM S45672); ס \% Marlaybrook, Bunya Mts, semi-evergreen thicket, 1-6 Mar. 1976, RJR. VED (QM S45673): 9, Kroombit Tops, open forest with Casuarina, on sand 23-25 Feb. 1982, GBM, RJR, GT (QM S45686): $0^{\circ}$. Calliope Ra. Kroombit Tops, $24^{\circ} 22^{\circ} \mathrm{S}, 151^{\circ} 00^{\circ} \mathrm{E}, \mathrm{PF} 13$, open forest 12-18 Dec. 1983, GBM, VED, GT, J. Gallon (QM S55264): $20^{\circ} \cdot 9$, , sume data, PF14 (QM S55265); ? Jimna SF, $26^{\circ} 40^{\circ} \mathrm{S}, 152^{\circ} 28^{\circ} \mathrm{E}$, under logs. 31 May $1978, \mathrm{~K}$. McDonald. S. Crafier (QM S45706); 10 , top of Blackbutt Ra., via Benarkin. $26^{\prime \prime} 52^{\circ} \mathrm{S}, 152^{\circ} 12^{\circ} \mathrm{E}, \mathrm{PF} 16$, rainforest $396 \mathrm{~m}, 17$ Aug.-1 0 Nov. 1974, GBM. SRM (QM S55268); 4 ${ }^{\circ}$, same data (QM S55269); ${ }^{\circ}$, Base of Blackbutt Ra.. $26^{\circ} 52^{\circ} \mathrm{S}, 152^{\circ} 11^{\circ} \mathrm{E}, 240 \mathrm{~m}$, PF 15 , rainforest, 17 Aug.-10 Nov. 1974, GBM, SRM (QM S55270); 2 ?, Fairlics Knob, $25^{\circ} 31^{\circ} \mathrm{S}, 152^{\circ} 17^{\prime} \mathrm{E}, 300 \mathrm{~m}$. PF9974, hoop pine scrub, 20 Dec. 2000-22 Mar. 2001, DC, GBM (QM S55271): 30 , 49, same locality, PF94(4, vine serub, 21 July- 20 Oct. 2000, DC, J. Wright, E. Vanderduys (QM S55272): उै. same data, 120 m . PF9463 (QM S55273): 20. One Tree Hill, $25^{\circ} 17^{\prime} \mathrm{S}, 151^{\circ} 55^{\circ} \mathrm{E}$. 180 m , vine scrub, PF9000, 27 Sept.-14 Dec. 1999, DC (QM S55274); \%, Nipping Gully, $25^{\circ} 41^{\circ} \mathrm{S}, 151^{\circ} 25^{\prime} \mathrm{E}, 150 \mathrm{~m}$. PF7259, open forest situ 3.27 Aug.-9 Oct. 1998, GBM (QM S55275): $0^{\circ}$, same locality, 240 m , PF 7707, 26 Jan.- 2 June 1999, GBM, GT (QM S55276): $2 \delta^{\circ}$, "Stockhaven", $25^{\circ} 48^{\circ} \mathrm{S}, 151^{\circ} 59^{\circ} \mathrm{E}$, 450 mm , rainforest. PF 7515, 10 Oct.-19 Dec. 1998, GBM, C. Gough (QM S55277): $0^{\circ}$, Nangur SF, $26^{\circ} 08^{\circ} \mathrm{S}, 151^{\circ} 59^{\circ} \mathrm{E}$, site $2,320 \mathrm{~m}$, PF, rainforest, 29 July-23 Oct. 1995, GBM (QM S42320): $0^{\circ}$, Varraman, $26^{\circ} 50^{\circ} \mathrm{S}, 152^{\circ} 03^{\circ} \mathrm{E}, 520 \mathrm{~m}$, rainforest, PF 17, 17 Aug.-10 Nov. 1974, GBM, SRM (QM S55278): $30^{\circ}$, McAfees Lookout, $27^{\circ} 26^{\circ} \mathrm{S}, 152^{\prime \prime} 52^{\circ} \mathrm{E}$, 150 m, PF7825, wet scleroplyll, 6 July-18 Oct. 1999, GBM (QM S55280); 2 $6^{3}, 3$, Camira, $27^{7} 38^{\circ} \mathrm{S}, 152^{\circ} 55^{\circ} \mathrm{E}$, open forest, PF, 30 July-Oct. 1990, RJR (QM S19622-3); ठ", Camira, under $\log , 22$ Jan. 1997. RJR (QM S55256); 9. Rochedale SF, $27^{\circ} 34^{\circ} \mathrm{S}, 153^{\circ} 08^{\circ} \mathrm{E} . \mathrm{PF}, 1-23 \mathrm{Ocl} .1979$. VED, RJR (QM S55282); d, same locality and collectors, PF, 20 Scpt.-11 Oct. 1979 (QM S55283): 9.17 Jan. 1980 (QM S55285): 9 , PF, 30 Aug-6Sept. 1979 (QMS55286): $\delta^{\circ}$. Bulburin Barracks, $24^{\circ} 32^{\circ} \mathrm{S}, 151^{\circ} 28^{\circ} \mathrm{E}, 580 \mathrm{~m}$, rainforest, pyrethrum 7816, 8 Oct. 1999, GBM (QM S45680): 2\%, Bulburin SF, 540 m , small sheet webs, 25-28 March 1977, RJR, VED (QM S45676); ${ }^{\text {T, top of range, }}$

Bulburin SF, $24^{\circ} 33^{\prime} \mathrm{S}, 151^{\circ} 33^{\prime} \mathrm{E}, 600 \mathrm{~m}, \mathrm{PF} 33,5$ Oct.-30 Dec. 1974, GBM, SRM (QM S45679): \%. with eng sac, Bulburin Forest nursery, $24^{\circ} 31^{\prime} \mathrm{S}, 151^{\circ} 29^{\circ} \mathrm{E}, 580 \mathrm{~m}$, rainforest under log. 21 Mar. 1975, MRG C. Horseman (AM KS71038); ${ }^{\circ}$, Rundle Ra., $23^{\circ} 39^{\circ} \mathrm{S}, 150^{\circ} 59^{\circ} \mathrm{E}$, semi-evergreen vine thicket, 30 m . $24-31 \mathrm{Mar}$ 1975, R. Kohout, VED (QM S45704): $120^{\circ}, 12$ 7. Mt Goonancman. $25^{\circ} 26^{\circ} \mathrm{S}, 152^{\circ} 18^{\circ} \mathrm{E}$, lituer, 3-7 Nov. 1980, RJR, VED (QM S45701); 43. 8 , Rocky Pt., 10 km S Round Hill Hd, $24^{\circ} 14^{\circ} \mathrm{S}, 151^{\circ} 56^{\circ} \mathrm{E}, 60 \mathrm{~mm}$, PF71, 28 Aug. 15 Dec. 1976, GBM, SRM (QM S45699). OTHER MATERIAL. New South Wales: f, ठ, Carrai SF nr Carrai Bat Cave, $31^{\circ} 01^{\circ} \mathrm{S}, 152^{\circ} 20^{\circ} \mathrm{E}$. Jan. 1993, MRG (AM KS34522).

DIAGNOSIS. In males the embolus arises retro-posteriorly whereas it is retrolateral in $B$. booloumba and antero-retrolateral in B.brooyar; palpal patellal apophysis blunt, inturned and shorter than B. booloumba and B.broovar in which it is digitiform. Selerotised base of epigynal atrium is bluntly rounded whereas it is sharply pointed in B. booloumba.

DESCRIPTION. Male. CL 2.0, AL 2.0. Ratio of AME: ALE: PME: PLE is 6:10:9:10. Legs 4123. 1, 8.4; I1, 7.0; III, 6.3; IV, 8.5. Notation of spines. Femora:I, D110, P00I;11, D111, P00I,R001;1II. Dil0, P011, R00I: IV, D110, P001, R00I. Patellac: 111, D001. Tibiac: 1, P111, V222, R01I; 11. D001, P001, V221, R0II: 1I1, P011, V222, R01I; IV, P1II, V212, R101. Mctatarsi spined with distal whorl of 5 spines.
o palp (Figs 2G-I, 4D). Embolus arises retro-posteriorly encircles tegulum to a distal curve postero-rctrolaterally. Patellal apophysis short, blunt, slightly incurved.
Males ranged in size from 3.1-4.0.
Female CL 2.2 AL 2.3, Ratio AME: ALE: PME: 1'LE is 7:11:10:II. Legs 4123. I, 8.2; II, 6.9; III, 6.3; IV, 8.3. Notation of spines similar to ot but fewer on ventral tibiae: III, VI20; IV, V120. Epigynum (Fig. 2J,K) selcrotised base of atrium short with blunt-rounded apex. Small lateral teeth present.
Females ranged from 3.1-4.9 (average 4.0).
Scanning electron micrograph of the foveal region (Fig. 2D) revealed a pattern of dark spots which suggested pheromone production, however these were also found in the male. Further investigation of the pale arcas near the fovea did not show any pores.

DISTRIBUTION. B. yeppoon (Fig. 8A) has been found from mid-eastern to southeastern Queensland. A male and female were collected


FIG. 4. A-D, Barahna spp. nov. A-C, B. booloumba spinnerets: A, ? ALS (lelt): B, $\sigma$ ALS (right), arrow to nubbin; C. ㅇ PMS, arrows to paracribellar spigots; D, B. yeppoon, ठ' palp, arrow to tegular apophysis.
from near the bat caves in Carrai SF, New South Wales.

## Barahna taroom sp. nov.

 (Figs 5A-E, 8C)ETYMOLOGY. From the type locality, Taroom.
MATERIAL. HOLOTYPE. ${ }^{\circ}$, Taroom, 9 km N , southeast Quecnsland, $25^{\circ} 27^{\circ} \mathrm{S}$, $150^{\circ} 08^{\circ} \mathrm{E}$, PF, June-11 Sept. 1996. P. Lawless. H. Janctzki, D. Potter (QM S36452). PARATYPES, Queensland: © Taroom, Dawson R., Nathan Gorge, riverine forest, PF, 12 Scpt.-1 3 Jan. 1997, P. Lawless (QM S 37019); 6 ? , same data (QM S37024): \&. same data (QM S37034): $40^{\circ}$ (QM S37049); 30, Tarcom District. Nathan Gorge, riverine forest. PF107, 13 Nov. $96-13$ Jan. 1997. P. Lawless (QM S36615); 23, same locality, PF010, 15 June-12 Sepl. 1996, P. Lawless (QM S37265); 46, same data (QM S36860): 20', same locality. PF107. 13 Nov. 96-13 Jan. 1997. P. Lawless (QM S37076); 50. . ㅇ. same data (QM S37096); ©́. Turoum Distriet, $25^{\circ} 25^{\circ} \mathrm{S}, 150^{\circ} 01^{\circ} \mathrm{E}$, Boggomoss no. 19, PF 105,18 Junc-9 Sept. 1996, P. Lawless (QM S36811). \%, Mt Zamia. $24^{\circ} 06^{\circ} \mathrm{S}$, $148^{\circ} 05^{\circ}$ E, vine scrub, 360 m, PF9818, 27 Oet.-17 Dee. 2000, DC, GBM (QM S55215); ठ, Mt Gavial, $23^{\circ} 36^{\circ} \mathrm{S}, 150^{\circ} 29^{\circ} \mathrm{E}$, open forest, $400 \mathrm{~m}, \mathrm{PF} 7486,17$ Dec.

98-14 Mar. 1999, DC (QM S55217); ס. Mt Hopeful, $23^{\circ} 45^{\circ} \mathrm{S}, 150^{\circ} 32^{\prime} \mathrm{E}$, vine serub, 440 mm, PF9012, 27 Sept.- 15 Dec. 1999. DC (QM S55218); 20. Mt Gavial, 450m. open forest; PF7488. 18 Dee. 98-14 Mar. 1999. DC (QM S55224): \& Mt Gavial, 320 m . vine forest, PF7489, 17 Dee. 98-14 Mar. 1999, DC (QM S55223); ㅇ, Mt Gavial, 400 m , open forest PF7687, 14 Mar.-28 June 1999, DC (QM S55222); 4 $3^{\prime}$. ? Nipping Gully, site $1,25^{\circ} 41^{\prime} \mathrm{S}$, $151^{\circ} 26^{\circ} \mathrm{E}, 200 \mathrm{~m}$, rainforest. PF7397,9 Oct.-18 Dec. 1998, GBM. C. Gough (QM S55225); đ̛, Nipping Gully, site 5 , 200m, rainforest, PF7503, 9 Oct.-18 Dee. 1998 , GBM, C. Gough (QM S55230): ${ }^{\text {o }}$. Nipping Gully, site $5,300 \mathrm{~m}$, rainforest intercept trap 7705, 26 Jan. 2 June 1999. GBM, GT (QM S55229); 子 ${ }^{\circ}$. Wetheron, $25^{\circ} 34^{\circ} \mathrm{S}, 151^{\circ} 41^{\circ} \mathrm{E}$, 150 m , vine serub, 1 PF7509, 10 Ocl.-19 Dcc. 1998, GBM, C. Gough (QM S55228): ©ै, East Woordmillar, 25 $5^{\circ} 41^{\prime} \mathrm{S}$, $151^{\circ} 36^{\circ} \mathrm{E}, 250 \mathrm{~m}$, vine scrub, intereept trap, GBM, C. Gough (QM S55231); 8, ㅇ, Yeppoon, Meikleville 1lill, $23^{\circ} 06^{\circ} \mathrm{S}, 150^{\circ} 43^{\circ} \mathrm{E}$, vine thicket, PF, 18 July- 23 Oct. 1990 , DW, RJR, K. Williams (QM S55279): ठ́, same locality and collectors, PF, 21 April-18 July 1990 (QM S34444): 38. 9 , same data (QM S34448); 3 . Olsens Cavern:, $23^{\circ} 10^{\circ} \mathrm{S}, 150^{\circ} 28^{\circ} \mathrm{E}$, open forest. PF, 21 Apr.-18 July 1990, DW, RJR (QM S40767): \%. Wonga 1lills. $26^{\circ} 03^{\prime} \mathrm{S}$, $150^{\circ} 49^{\circ}$ E, site $4,470 \mathrm{~m}$, brigalow, PF10249, 10 Oet.-11 Dee. 2002, GBM, DC (QM S55288). OTHER


FIG 5. A-K, Barahna spp. nov, A-E, B. taroom; A-C, ठ palp (ventral, retrolateral, dorsal); D,E, o epigynum (ventral, dorsal eleared); F-K, B. scoria; F-H, \& cpigynum (ventral, dorsal cleared, lateral); I-K, of palp (ventral, retrolateral, dorsal).

MATERIAL: 4 § $^{\text {ºn }}$ 2 9 , Lower Dry Ck, Kroombit Tops, 45 km SSW Calliope, $24^{\circ} 23^{\prime} \mathrm{S}, 150^{\circ} 56^{\circ} \mathrm{E}, 720 \mathrm{~m}$, microphyll rainforest, PF, site 10, 13-18 Dec. 1983, GBM, VED, J. Gallon, GT (QM S55242); $5{ }^{\circ}, 2$ 영, same locality and collectors, 700 m , PF, site 9, 11-18 Dec. 1983 (QM S45685); 39, Calliope Ra., Kroombit Tops, $24^{\circ} 22^{\prime}$ S, $151^{\circ} 00^{\circ} \mathrm{E}, 880 \mathrm{~m}$, open forest, site $13,12-18$ Dec. 1983, GBM, VED, J. Gallon, GT (QM S55244); $20^{\circ}$, The Caves, $23^{\circ} 11^{\prime} \mathrm{S}, 150^{\circ} 28^{\circ} \mathrm{E}$, open forest, PF, 21 Apr.-18 July 1990, RJR, DW (QM S40757); \%, same locality, PF, 21 Mar. 1991, RJR, DW, K. Williams (QM S19579).

DIAGNOSIS. Embolus arises anteroretrolaterally, unlike B. yeppoon, which has posterior origin, distally it is gently curved (Fig. 5B), unlike B.booloumba which is curled. © palpal patellal apophysis is truncated (Fig. 5C.), unlike the other species. Basal selerotisation of epigynal atrium is rounded anteriorly and longer than B. yeppoon, not pointed like B. booloumba; dorsal foveal protuberances reduced.

DESCRIPTION. Male. CL 2.2, AL 2.2. Ratio of eyes AME: ALE: PME: PLE is 6:8:9:10. Legs 4=123. 1, 9.8; II, 8.0; III, 7.2; IV, 9.8. Notation of spines differs from B. booloumba: Femora: II, P01I, R011. Tibia: III, V221, R011; IV, D00I, V111, R1Il.
ot palp (Fig. 5A-C). Embolus arising antero-retrolaterally; membraneous conductor broadening distally, tegular apophysis obseured by conduetor. RTA digitiform; ventro-retrolateral apophysis blunt, selerotised, inturned. Patellal apophysis short, truneate.

Other males were smaller, ranging from 3.2-3.8 in length.
Female. CL 1.5, AL 1.7. Legs 4123. I, 4.9; 1I, 3.9; III, 3.6; IV, 5.0. Notation of spines differs from $B$. booloumba. Femora: I, D100; III. D001: IV, DI00. Tibiae: P001, V010; III, PI01, V011, R101; IV, P10I, V011, R101. Epigynum (Fig.

5D,E). Basal selerotisation of atrium is long and rounded anteriorly. Insemination ducts and spermathecae similar to $B$ booloumba.
Females ranged in size from 3.2-3.6.
DISTRIBUTION. B. taroom (Fig. 8C) has been collected from mid-eastern to southeastern Qucensland.

## Barahna scoria sp. nov. <br> (Figs 5F-K, 8C)

ETYMOLOGY. From the type locality Mt Scoria.
MATERIAL. HOLOTYPE. ठ', Mt Scoria, southeastern Queensland. $24^{\circ} 32^{\prime} \mathrm{S}, 150^{\circ} 36^{\prime} \mathrm{E}, 200 \mathrm{~m}$. vine scrub, PF 9468,29 Junc-21 Oct. 2000, DC, J. Wright. E. Vanderduys (QM S55212), PARATYPES. 2 우, same locality as holotype, PF 9980.20 Dec. 2000-23 Mar. 2001, DC, GBM (QM S55214); $\delta^{\circ}$, same data (QM S55213); 30., same locality, PF9452, 28 Mar.-29 June 2000, DC (QM S55216).

DIAGNOSIS. Embolus arises antcroretrolaterally, encircles tegulum and is gently curved distally like B. taroom and unlike other species. The selerotised atrial base is low with a small pointed apex unlike B. taroom where the apex is thin and rounded.
DESCRIPTION. Male. CL I.3, AL 1.3. Ratio of AME: ALE: PME: PLE is 5:8:7:8. Legs 4123. I. $5.0 ;$ II, $4.0 ; 111,3.6 ;$ IV, 5.2. Notation of spines. Femora: I, D101, P00I; II. Dl00, P00I, R00I; III, DI00, P001, R00I; IV, D100, P001, R00I, Patellae: I, D001; 1I, D001; 1II, D00I; IV, D00I. Tibiae. 1, P011, V121, R001; 11, P011, V112, R01I; III, D00I, P0II, V012, R0II; IV, D001, P01I, VI12, R01I. Metatarsi spined with whorl of 4-5 spines distally.
ot palp (Fig. 51-K). Embolus emerging antero-retrolaterally from loop of sperm duct; slightly curved distally. Ventro-retrolateral tibial apophysis blunt and sclerotiscd, RTA short, digitiform. Patellal apophysis short, diagonally truncated.
Other males ranged from 2.5-2.9.
Female. CL 1.3, AL 1.5. Legs 4123. I, 4.3: II, 3.5: III, 3.2; IV, 4.6. Notation of spines. Femora: I, P001; II, D100; 111, D100; IV, D100, R001. Tibiac: I, V020; Il, V010; III, P011, R011; IV, D001, P00I, R001. Metatarsi spined with whorl of $4-5$ spines distally. Epigynum (Fig. 5F-H) selerotised base of atrium low with small pointed apex.
The other female was 2.7 in length.

DISTRIBUTION. B. scoria (Fig. 8C) has been collected from only one locality, Mt Scoria.

Barahna toonumbar sp. nov.
(Figs 6A-E, 8B)
ETYMOLOGY. From the type locality, Toonumbar SF.
MATERIAL. HOLOTYPE. ${ }^{*}$, Toonumbar SF via Grevillea, northem New South Wales, $28^{\circ} 28^{\circ} \mathrm{S}, 152^{\circ} 43^{\circ} \mathrm{E}$, PF 23, 31 Mar.-2 Aug. 1975, GBM, SRM (QM S55259). PARATYPES. New SouthWales: 0 on, same data (QM S55260); ${ }^{\circ}$, $\%$, Border Ranges NP, Tweed Range Rd. $28^{\circ} 5^{\circ} \mathrm{S}, 153^{\circ} 02^{\circ} \mathrm{E} .470 \mathrm{~m}, 4$ Feb.-9 Apr. 1993, M. Gray, G Cassis (AM KS35945); ㅇ, same data (AM KS35950); 3 ㅇ, Whian Whian SF, Running Rd, $28^{\circ} 36^{\circ} \mathrm{S}, 153^{\circ} 21^{\circ} \mathrm{E}, 250 \mathrm{~m}$, PF, 4 Feb. 9 Apr. 1993. MRG G Cassis (AM KS35917); 2\%. Whian Whian SF, Mackays Rd, 420m, PF, MRG G Cassis (AM KS35918).
DIAGNOSIS. Embolus shorter than that of previously described species; it arises postero-prolaterally ending mid-retrolaterally. Selcrotisation of basc of epigynal atrium differs from previously described species; it is squarish and flat-topped.

DESCRIPTION. Male. CL 1.5, AL 1.4. Ratio of AME: ALE: PME: PLE is 6:9:8:8. Legs 4123. I, 4.3; II, 3.6; III, 3.3; IV, 4.9. Notation of spines. Femora: 1, D101, P001; II. D011, P001, R001; III, DI 10, P001, R001: 1V, D100, P001, R001. Patellae: III, D00I; IV, D001. Tibiac: 1, D001, P011, R0II; II, D001, PI01, VI11, R101; 111, D001, Pl0I. V002, R101; IV, Di01, PI01, VII2, R011. Metatarsi spined with whorl of $4-5$ spines.
ot palp (Fig. 6A-C). Embolus emerges posteroprolaterally; it describes about three-quarters of a circle around the tegulum to rest on the membrancous conductor; tegular apophysis absent. The ventro-retrolatcral apophysis inturns acutely to a point. RTA pointed. Patellal apophysis short.
Other two males 2.5 and 2.8 in length.
Female. CL I.1, AL I.5. Legs 4I23. I, 3.4; 11, 2.9; III, 2.6; IV, 3.6. Notation of spines. Fentora: I, D100, P00I; 1I, DI00;111, DI00, R001:1V, D100, R00I. Patellae: 11, D00I; III, D00I; IV, D00I. Tibiac: I, V00I: lI, P001, V001, R00I; Ill, D001, Pl0I, V011, R10I; IV, D100, PI00, V00I, R00I. Metatarsi spined with whorl of $4-5$ spines distally. Epigynum (Fig. 6D,E) basal selcrotised area flat-topped.

Other females ranged from 2.3-3.5.
DISTRIBUTION. B. toonumbar (Fig. 8B) has been collected from the Bordcr Range area of northern New South Wales.


FIG. 6. A-L, Barahna spp. nov. A-E, B. toomumbar; A-C, of palp (ventral, retrolateral, dorsal); D, E, of epigynum (ventral, dorsal eleared); F-K, B. myall; F-H, ơ palp (ventral, retrolateral, dorsal); I-K, of epigynum (posterior, ventral, dorsal eleared); L,M, Baralma glenelg, o epigynum (ventral, dorsal eleared).

Barahna myall sp. nov.
(Figs 6F-K, 7B,C, 8B)
ETYMOLOGY. From type locality, Myall Lakes NP.
MATERIAL. HOLOTYPE. © ${ }^{\circ}$, Myall Lakes NP, New South Wales, $32^{\circ} 38^{\circ} \mathrm{S}, 152^{\circ} 12^{\prime} \mathrm{E}, \mathrm{PF}, 10 \mathrm{OcL}$ 1997. L. Wilkic (AM KS71037). PARATYPES. N.S.W: 20, 29. Smiths Lake, Myall Lakes, $32^{\circ} 23^{\prime} \mathrm{S}$. $152^{\circ} 30^{\circ}$ E, dry selerophyll. 8 May 1974, L. Blyton (AM KS34835): \% (traeheal tubes dissected) same data (AM KS34835); 3. Myall Lakes, same data as holutype (AM KS71030): 9,1 June 1997 (AM KS71035): $30^{\circ}$, 7 , same data as holotype (AM KS62448); 오 (AM KS62449); 아, with egg sac, Upper Allyn, $32^{\circ} 22^{\prime} \mathrm{S}$, $151^{\circ} 32^{\circ} \mathrm{E}$, MRG (AM KS 34837 );
o, Gloutester, 56 km W on Barrington Tops Forest Rd, $32^{\circ} 01^{\prime} \mathrm{S}, 151^{\circ} 22^{\prime} \mathrm{E}, 17$ Mar. 1982, MRG. H. Pamaby (AM KS8829). ${ }^{\circ}$, Kerewong SF nr Lome, $31^{\circ} 36^{\prime} \mathrm{S}, 152^{\circ} 34^{\circ} \mathrm{E}$, PF coll. 15 July 1979. D. Milledge (AM KS5404); ${ }^{\text {P }}$, same data (AM KS71034). ${ }^{\circ}$, Lome SF, $31^{\circ} 35^{\circ} \mathrm{S}, 152^{\circ} 57^{\circ} \mathrm{E}, \mathrm{PF}$, coll. 4 Nov. 1979. D. Milledge (AM KS5599): 3. same data (AM KS5641): 29, same data (AM KS5667); $2 \delta^{\circ}$, same location, coll. 30 July 1979 (AM KSI 6214); ; , same data (AM KSI 6219); ㅇ. Dorrigo NP. Dorrigo-Bellingen Rd. $30^{\circ} 24^{\circ} \mathrm{S}, 152^{\circ} 45^{\circ} \mathrm{E}$, PF, 18 Feb. 1993, MRG G Cassis (AM KS35767). ㅇ. Kuring-gai NP. Bobbin Head (W side), $33^{\circ} 39^{\circ} \mathrm{S}, 151^{\circ} 09^{\circ} \mathrm{E}, 10$ Apr. 1974, MRG (AM KS34832); ¢, same locality, 10 May 1974, MRG (AM KS34833); 9 , same locality, 2 Nov. 1993, MRG (AM KS34834); 20, 우, juvs. Maria SF nr Kempsey, $31^{\circ} 11^{\prime} \mathrm{S}, 152^{\circ} 50^{\circ} \mathrm{E}$, in logs,


FIG. 7. A-D, Barahna spp. nov. foveal areas. A, \& B. booloumba; B, \& B. myall; C, ơ B. myall; D, ๆ B. glenelg.

Eucalyptus gummifera (Bloodwood forest), 23 Apr. 1974, MRG(AM KS34836); ; , Bulls Ground SF, nr Wauchope, $31^{\circ} 35^{\circ} \mathrm{S}, 152^{\circ} 41^{\circ} \mathrm{E}, \mathrm{PF}, 10$ Feb. 1991. A. York, NSW Forestry (AM KS43484); ס, Kiwarrak SF, nr Taree, $31^{\circ} 58^{\circ} \mathrm{S}, 152^{\circ} 26^{\circ} \mathrm{E}, \mathrm{PF}$ coll. 28 Sept. 1979 , W.C. King (AM KS3943). 2 , Glen Dhu Cave Timor, $31^{\circ} 34^{\circ} \mathrm{S}$, $151^{\circ} 27^{\circ} \mathrm{E}$, cave, 25 May 1995, S. Eberhard (AM KS57011).

DIAGNOSIS. Larger than other speeies, seldom less than 5.0 in length. Embolus arises postero-prolaterally and terminates mid-retrolaterally as in B. toomumbar and unlike other species. Patellal apophysis very long and bifid unlike B. toonumbar. Selerotised base of atrium is flat and square like B. toonumbar. Spermatheeae larger than other speeies.

DESCRIPTION. Male. CL 3.0 AL 2.4. Ratio of AME: ALE: PME: PLE is $10: 13: 12: 13$. Legs 4123. I, 10.5; 11, 8.8; 111, 8.0; IV 11.0. Notation of spines. Femora: 1, D101, P002, R001; 11. D101, P011, R011; III, D111, P011, R011; IV, D110, P001. Patellac: Il, D001; IIl, D001. Tibiae: I, P110, V202, R011; 11, P011, V222, R011; 11I, D001, P011, V222, R011; IV, D100, P101, V222, R011. Metatarsi spined with distal whorl of 5 spines.
ơ palp (Fig. 6F-H). Embolus arises posteriorly deseribing about three quarters of a eirele round the tegulum to rest on membraneous conduetor. Tegular apophysis absent. Short, blunt ventro-RTA, digitform RTA. Bifid patellal apophysis, longer than RTA.

Other males ranged from 3.6-5.6.
Female. CL 2.4 AL 2.8. Ratio of AME: ALE: PME: PLE is 9:13:1I:I4. Legs 4123. I, 7.9; II, 6.4; IIl, 5.7; IV, 8.5. Notation of spines. Femora: 1, D101, P002, R001; 11, DI01, P01I, R0I1; IlI, D1II, P011, R01I; IV, D110, P00I. Patellae. II,

D001; III, D001. Tibiac: I, P110, V202, R011; 11, P011, V222, R011; 111, D001, P011, V222. R0I1; IV, D100, P101, V222, R011. Metatarsi spined with whorl of 5 spines distally.

The foveal area is almost flat and the associated pale areas dorsal rather posterior (Fig.7B); further investigation did not show any pores. The male lacks the swellings and pale areas (Fig. 7C).

Epigynum (Fig. 6I-K). Basal selerotised area of atrium flat-square; spermatheeae large. Four simple tracheal tubes in abdomen, medians longer than laterals (dissection courtesy of M.R.Gray).

Other females ranged from 5.2-6.5.
DISTRIBUTION. B. myall (Fig.8B) was eollected from eastern New South Wales. Females from Kuring-gai NP near Sydney which are placed in this speeies need further confirmation when males are available.

## Barahna glenelg sp. nov. <br> (Figs 6L,M, 7D, 8D)

ETYMOLOGY. From the type locality, Glenelg R.
MATERIAL. HOLOTYPE. $\circ$, Glenelg R. Darmoor, Vietoria, $37^{\circ} 55^{\prime} \mathrm{S}, 141^{\circ} 16{ }^{\circ} \mathrm{E}$, under logs at base of limestone outerop, 25 Mar. 1974, MRG (AM KS034839).
DIAGNOSIS. Foveal protuberanees broader than other speeies. Basal selerite flat-topped like B. toonumbar and myall but differing from these in being longer than wide.

DESCRIPTION. Female. CL 2.5, AL 2.9. Ratio of AME: ALE: PME: PLE is $8: 10: 9: 9$. Coloration and pattern similar to other speeies. Foveal protuberances oeeupying a wider area separating foveal groove (Fig. 7D). Legs 4123. I, 7.2; II, 6.5;


FIG. 8. A-D, distribution maps of Barahna spp. nov. A, B. yeppoon; B, B. booloumba, B. brooyar, B. myall, B. toonumbar; C, B. scoria, B. taroom; D, B. glenelg.

111, 5.9; 1V, 7.8. Notation of spines. Femora: 1, D101, P002, R001; 11. D101, P001, R001; 111, D111, P011, R001; IV, D101, P001, R001. Tibiae: I, P011, V221, R000; I1, P011, V202, R011; 11I, D001, P101, V122, R101; IV, D001, P101, V112, R101. Metatarsi spined with distal whorl of 4-5 spines.

Epigynum (Fig. 6L.M). Basal sclerite of atrium longer than wide, flat-topped.
The male is unknown.
DISTRIBUTION. Onc female B. glenelg (Fig. 8D) has been collected from Glenelg R., near Dartmoor, Victoria.

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